

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

Claims 1-10 (Canceled)

11. (Currently Amended) A radio reception apparatus, comprising:

a correlation calculator that performs a correlation calculation, having a calculation length, on a reception signal using a known signal;

a delay detector that performs a delay detection using a signal obtained from the correlation calculation;

a detector that detects a synchronization timing based on the delay detection;

a reception situation estimator that estimates at least one of a signal to noise ratio, a reception power and a ratio of energy per bit to spectral noise density ( $E_b/N_0$ ) from the reception signal on which the correlation calculation is performed; and

a calculation length controller that controls the calculation length according to the at least one of the signal to noise ratio, the reception power and the  $E_b/N_0$  estimated by the reception situation estimator.

12 (Previously Presented) The radio reception apparatus according to claim 11, wherein the calculation length controller increases the calculation length when the at least one of the signal to noise ratio, the reception power and the  $E_b/N_0$  is bad, and decreases the calculation length when the at least one of the signal to noise ratio, the reception power and the  $E_b/N_0$  is good.

Claims 13-18 (Canceled).

19 (Currently Amended) A synchronization timing detection method, comprising:  
performing a correlation calculation, having a calculation length, on a reception  
signal using a known signal;

detecting a delay using a signal obtained as a result of the correlation calculation;

detecting a synchronization timing from the detected delay;

estimating at least one of a signal to noise ratio, a reception power and a ratio of  
energy per bit to spectral noise density ( $E_b/N_0$ ) from the reception signal on which the  
correlation calculation is performed; and

controlling the calculation length according to the estimated at least one of the signal  
to noise ratio, the reception power and the  $E_b/N_0$ .

Claims 20-21 (Canceled).

22 (Previously Presented) The synchronization timing detection method according  
to claim 19, wherein controlling the calculation length comprises increasing the calculation  
length when the at least one of the signal to noise ratio, the reception power and the  $E_b/N_0$   
is bad and decreasing the calculation length when the at least one of the signal to noise  
ratio, the reception power and the  $E_b/N_0$  is good.

Claim 23 (Canceled).

24. (New) A radio reception apparatus comprising:

a correlation calculator that calculates a correlation having a calculation length on a  
reception signal using a known signal;

a delay detector that detects a delay using a signal obtained from the calculated  
correlation;

a detector that detects a synchronization timing based on the detected delay;

a reception situation estimator that estimates an  $E_b/N_0$  based upon the reception signal; and

a calculation length controller that controls the calculation length according to the  $E_b/N_0$  estimated by the reception situation estimator.

25. (New) A synchronization timing detection method comprising:

calculating a correlation having a calculation length on a reception signal using a known signal;

detecting a delay using a signal based upon a result of the calculated correlation;

detecting a synchronization timing from the detected delay;

estimating  $E_b/N_0$  based on the reception signal; and

controlling the calculation length according to the estimated  $E_b/N_0$ .